

**Notice of Allowability**

Application No.

10/014,743

Examiner

Jezia Riley

Applicant(s)

LEE ET AL.

Art Unit

1637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Response received on 9/25/03.
2. ☒ The allowed claim(s) is/are 80-86.
3. ☒ The drawings filed on 29 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

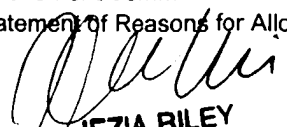
7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____    |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____               | 6 <input type="checkbox"/> Examiner's Amendment/Comment                    |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9 <input type="checkbox"/> Other   |

  
JEZIA RILEY  
PRIMARY EXAMINER

## ALLOWED CLAIMS | TS

80. (Previously added): An energy transfer dye comprising:  
a xanthene donor dye capable of absorbing light at a first wavelength and emitting excitation energy in response thereto;  
a 4,7-dichlororhodamine acceptor dye capable of absorbing the excitation energy emitted by the donor dye and fluorescing at a second wavelength in response thereto; and  
a non-nucleosidic linker linking the 5- or 6-ring position of the donor dye to the 5- or 6-ring position of the acceptor dye.

81. (Previously added): The energy transfer dye of Claim 80 in which the donor dye is a fluorescein dye.

82. (Previously added): The energy transfer dye of Claim 80 in which the linker has a backbone that is less than 9 atoms in length.

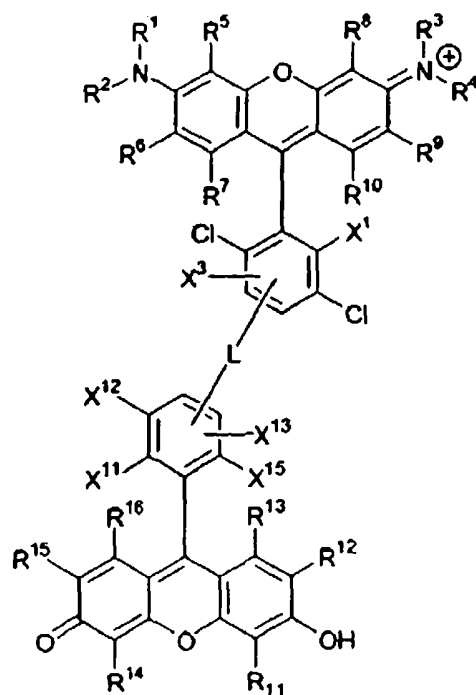
83. (Previously added): The energy transfer dye of Claim 80 in which the linker comprises a functional group selected from an alkene, a diene, an alkyne, a five membered ring having at least one unsaturated bond, a six membered ring having at least one unsaturated bond and a fused ring structure.

84. (Previously added): The energy transfer dye of Claim 80 which further comprises a linking group suitable for attaching the energy transfer dye to another substance.

85. (Previously added): The energy transfer dye of Claim 84 in which the linking group is attached to the 4'-position of the 4,7-dichlororhodamine acceptor dye.

86. (Previously added): The energy transfer dye of Claim 80 which comprises the structure:

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wherein:

$R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are each, independently of one another, selected from hydrogen and alkyl, or alternatively  $R^1$  and  $R^5$ ,  $R^2$  and  $R^6$ ,  $R^3$  and  $R^8$  and/or  $R^4$  and  $R^9$  may be taken together with the atoms to which they are bonded to form a 5, 6 or 7-membered ring;

$R^5$ ,  $R^6$ ,  $R^7$ ,  $R^9$  and  $R^{10}$  are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl and substituted phenyl, or alternatively,  $R^6$  and  $R^7$  and/or  $R^9$  and  $R^{10}$  may be taken together with the atoms to which they are bonded to form a benzo group;

$R^8$  is selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl, substituted phenyl and linking group;

$X^1$  and  $X^3$  are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile and alkoxy;

L is the linker linking the donor and acceptor dyes;

$R^{11}$ ,  $R^{12}$ ,  $R^{13}$ ,  $R^{15}$  and  $R^{16}$  are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate,

sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl and substituted phenyl, or alternatively,  $R^{12}$  and  $R^{13}$  and/or  $R^{15}$  and  $R^{16}$  may be taken together with the atoms to which they are bonded to form a benzo group;

$R^{14}$  is selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile, alkoxy, phenyl, substituted phenyl and linking group; and

$X^{11}$ ,  $X^{12}$ ,  $X^{13}$  and  $X^{15}$  are each, independently of one another, selected from hydrogen, fluorine, chlorine, bromine, iodine, carboxyl, alkyl, alkene, alkyne, sulfonate, sulfone, amino, ammonium, amido, nitrile and alkoxy.